Dee May
Vice President
Federal Regulatory

September 5, 2007

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: <u>**Petitions of AT&T Inc., BellSouth Corporation, the Embarq Local Operating**</u>
        <u>**Companies, and Qwest Under 47 U.S.C. § 160(c) for Forbearance from Title II and**</u>
        <u>**Computer Inquiry Rules with Respect to Broadband Services, WC Docket Nos. 06-**</u>
        <u>**125 & 06-147;**</u>

        <u>**In the Matter of Special Access Rates for Price Cap Local Exchange Carriers, WC**</u>
        <u>**Docket No. 05-25.**</u>

Dear Ms. Dortch:

        Yesterday, Susanne Guyer and Ed Shakin of Verizon spoke with John Hunter,
Commissioner McDowell's Chief of Staff and Senior Legal Advisor, to discuss the above
proceedings. The positions set forth are consistent with those placed on the record. Verizon
provided the attached documents as part of the discussion.

Sincerely,

Dee May

Attachments

cc: J. Hunter   M. Maher   C. Shewman
    T. Navin   W. Kehoe
    D. Stockdale   W. Dever

ATTACHMENT D

DECLARATION OF CYNTHIA WELLS

In the Matter of Special Access Rates for Price Cap Local Exchange Carriers	WC Docket No. 05-25 & RM-10593

DECLARATION OF CYNTHIA WELLS

1. My name is Cynthia Wells. I am employed by Verizon Wireless as Director, Transport and Interconnection. In this role, I am responsible for obtaining, negotiating, and overseeing Verizon Wireless' contracts with third-party providers of transport and interconnection facilities. My business address is 2785 Mitchell Drive, Walnut Creek, California 94598.

2. The purpose of my declaration is to describe the competitive alternatives Verizon Wireless sees in the marketplace with respect to "backhaul" services that are used to connect individual wireless cell sites to other parts of Verizon Wireless' network. These "backhaul" facilities typically consist of DS1 special access channel terminations but in some cases may include DS3 or higher-capacity channel terminations. Because Verizon Wireless frequently must obtain backhaul facilities from ILEC as well as from competitive access providers, Verizon Wireless has considerable experience regarding the availability of competitive alternatives for wireless backhaul facilities.

3. In general, it has been Verizon Wireless' experience that, in the past few years, the competitive options for wireless backhaul facilities have increased considerably. This has occurred in large part because of the rapid growth in demand for wireless services generally, and in particular for wireless broadband services (such as

Verizon Wireless's EvDO), which have increased the bandwidth requirements for wireless backhaul at individual cell sites. Many competitive carriers have started vying to fulfill this rising demand. In particular, in recent years we have seen an increase in offers from cable operators and fixed wireless providers.

4. On June 20, 2007, for example, Verizon Wireless held a symposium in Charlotte, North Carolina with competitive providers of access and transport services to discuss our needs and requirements as we plan to augment and extend our network to meet the rising demand for wireless broadband services. More than a dozen competitive providers responded to the invitation, with the apparent intention of marketing themselves to Verizon Wireless. These providers included traditional carriers and fiber suppliers such as Level 3 and Time Warner Telecom, cable operators such as Comcast, Cox, and Time Warner Cable, and fixed wireless providers such as Tower Cloud.

5. The response that Verizon Wireless received at the symposium is consistent with its general experience in identifying competitive suppliers; in addition to the carriers that responded to the symposium invitation, Verizon Wireless is aware that Cablevision, Fibertech, Pennsylvania Power & Light (PPL), TTMI, Hudson Valley Datanet, and Oxford network all offer facilities that could be used for wireless backhaul services and FiberTower offers a fixed wireless alternative for wireless backhaul facilities. As a result of rising competition in the provision of wireless backhaul, Verizon Wireless has seen a steady decrease in prices for the DS1 and DS3 services traditionally used for wireless backhaul. Accordingly, Verizon Wireless supports the Commission's deregulatory policies, which has allowed this competition to develop.

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6.   In addition to purchasing backhaul services from third parties, Verizon Wireless also self-supplies its own backhaul in many cases. In some cases, Verizon Wireless uses microwave to provide backhaul services. Verizon Wireless has a number of licenses for two-way microwave throughout the country that it uses for this purpose. In Virginia, for example, approximately one-third of Verizon Wireless's total DS-1 equivalents used for wireless backhaul are supplied by Verizon Wireless itself using its own microwave facilities.
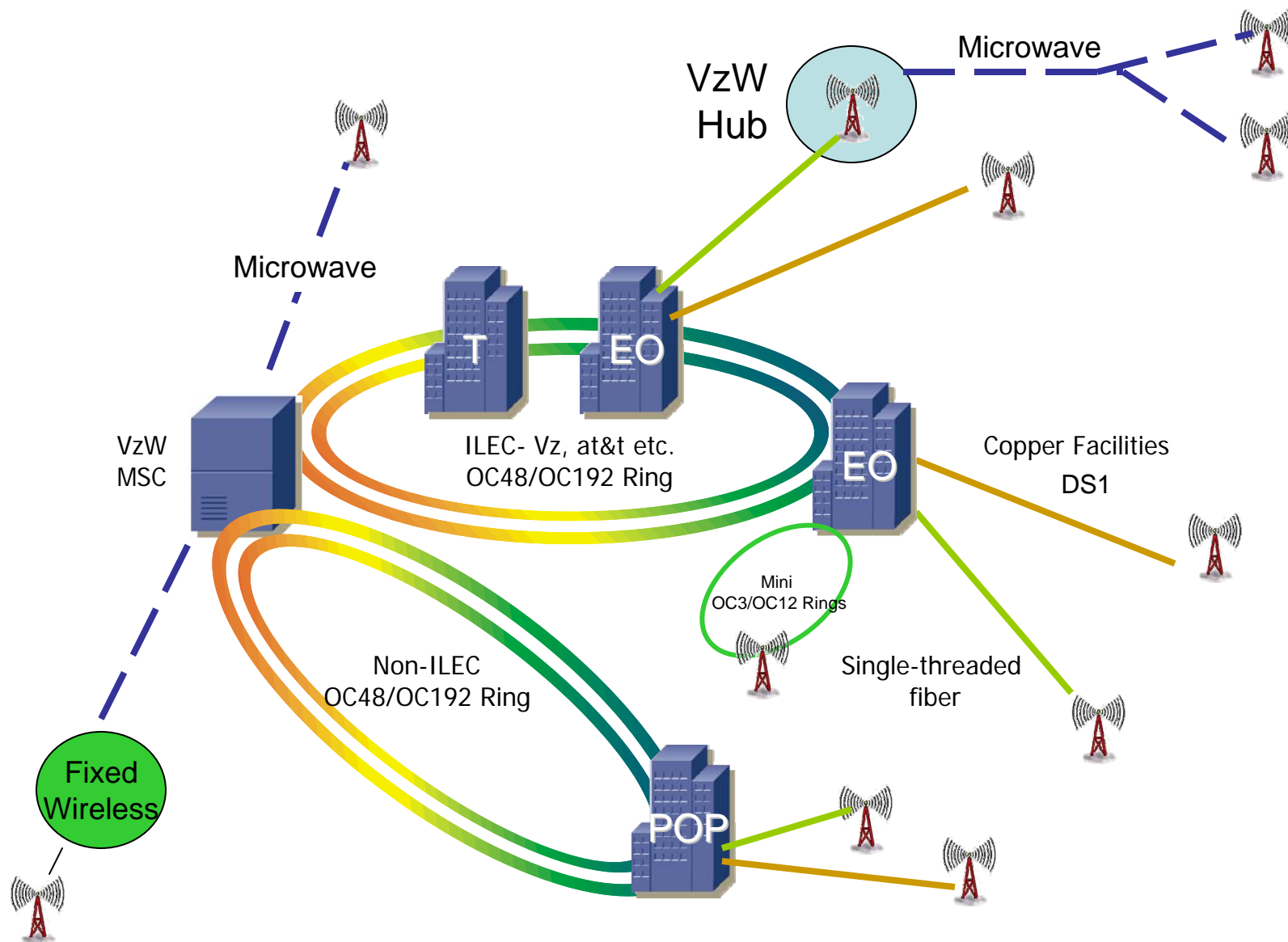
7.   In Verizon Wireless's experience, it is particularly attractive from an economic perspective to deploy alternative technologies such as fixed wireless and microwave in more sparsely populated or remote areas. In metropolitan areas where there tend to be more competitive options, it is often more practical to lease a traditional high-capacity circuit.

8.   This concludes my declaration.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 8, 2007

Cynthia Wells

VzW Hub

Microwave

Microwave

T

EO

EO

VzW MSC

ILEC- Vz, at&t etc.
OC48/OC192 Ring

Copper Facilities
DS1

Mini
OC3/OC12 Rings

Non-ILEC
OC48/OC192 Ring

Single-threaded
fiber

Fixed
Wireless

POP

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Opportunity Knocks at Cable's Door

As wireless carriers look for more backhaul capabilities at less cost, Multiple Service Operators (MSO) arrive with plenty of options.
By M.J. Richter

The mobile communications industry, one of the technology world's biggest success stories of all time, is discovering new meaning behind the old saying that "success has a price." For most of the past 25 years, the price in question has been that of building wireless networks to keep up with explosive customer growth. Today, wireless operators are focused on increasing their network efficiencies, particularly in wireless backhaul, to minimize Operating Expenses (OpEx) costs — both those incurred by their current networks and those that will be required to support new wireless applications and services.
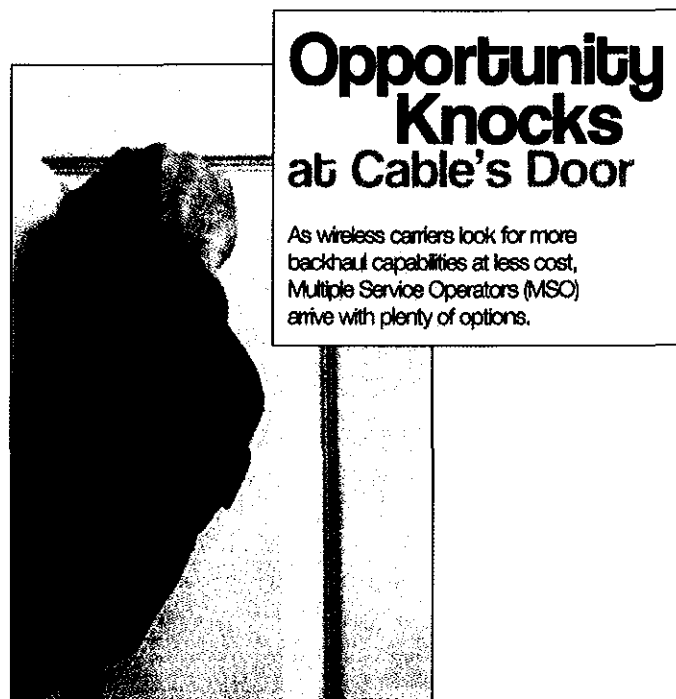
On average, transport costs account for nearly 25% of wireless operators' OpEx costs, and 60%-75% of those transport costs are attributed to backhaul. Those numbers translate into a U.S. backhaul market valued at slightly more than $2 billion in 2006 and could reach $16 billion by 2009, according to the Cellular Telecommunications & Internet Association. GeoResults, a research firm, estimates that between 2005 and 2009, wireless operators around the world will spend $31 billion on backhaul.

Since the wireless industry's inception, wireless carriers typically have leased T-1 lines from local exchange carriers to backhaul their cell-site TDM traffic. As their customer base has grown, so too have their backhaul needs. In 2005, wireless operators needed an average of three T-1s per cell site, according to GeoResults. By 2009, the average number of T-1s required to handle backhaul will be at least nine per cell site, a 200% increase. The number of voice Minutes of Use (MoU) continues to grow at a rapid pace (see Figure 1).

In addition to the growth of voice traffic, new, high-bandwidth Third-Generation (3G) data and multimedia services, such as mobile video, music downloads, news and mobile gaming, will continue to push mobile carriers' bandwidth requirements even higher. As a result, carriers are migrating their infrastructures towards IP-based networks, both to support new high-bandwidth data services and scale bandwidth as customers require. Growth of these new services is causing mobile carriers to look at alternate technologies, such as Ethernet, for transport and cell-site backhaul.

Backhaul: "Up For Grabs"

For wireless carriers, a dual challenge is to accommodate growth in the number of customers, MoU and bandwidth while finding out how to reduce OpEx. Keeping OpEx in check is critical — it better positions wireless carriers to price services at a competitive point while still turning a profit.

Opportunity Knocks at Cable's Door

As wireless carriers look for more backhaul capabilities at less cost, Multiple Service Operators (MSO) arrive with plenty of options.

Total Wireless Minutes of Use
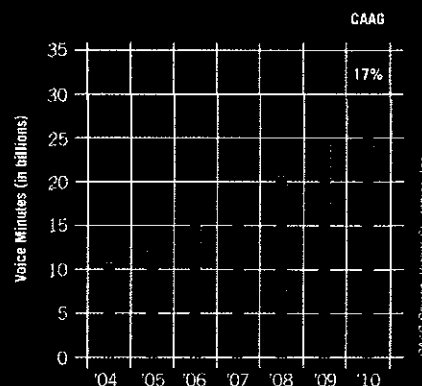Source: U.S. Mobile Backhaul Growth Trend Analysis 2005, Visant Strategies, Inc.

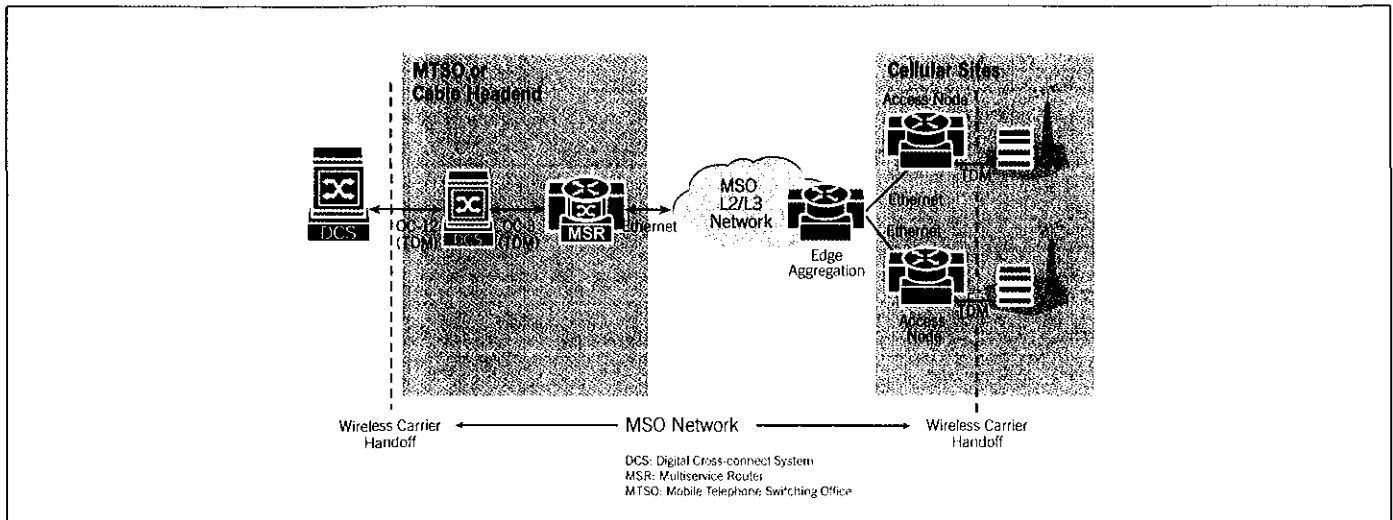Figure 1. Total wireless minutes of use

Figure 2. Ethernet backhaul network

"There is no question that wireless carriers are looking to grow revenue-generating service offerings while curbing OpEx, thereby increasing profitability," said Iyad Tarazi, vice president of network development at Sprint Nextel. "The amount of bandwidth required will, in many cases, require an alternative to traditional T-1 leased lines in order for this to make sense."

Most wireless carriers have identified backhaul as an important area in which to reduce expenses, by considering alternatives to leased T-1 backhaul lines, such as native Ethernet service. The wireless backhaul network currently is "up for grabs," says Peter Jarich, principal analyst for wireless infrastructure with Current Analysis, a research firm. Jarich believes MSOs are capable of capturing a significant share of the wireless backhaul market.

To do that, MSOs must have the facilities in place and be able to match the service-assurance capabilities and reliability that wireless operators currently get from the telcos, Jarich says. "They're in a pretty good competitive spot. It's something they're going to have to show they can do, but if they can, then clearly it's a nice market opportunity [for them]."

That opportunity coincides with a major strategic objective on the part of many MSOs: They have invested heavily in their fiber or Hybrid Fiber-Coax (HFC) infrastructures over the past several years to provide broadband and voice services to residential customers. Now, with these networks upgraded and enhanced, they are looking to leverage this base and utilize it to offer Ethernet services to enterprise customers, carriers and wireless providers.

The majority of wireless operators today seek more affordable T-1 services for their backhaul, while others prefer to buy native Ethernet services to handle backhaul. MSOs can readily position themselves to satisfy both requirements with fiber and/or coax facilities in place

near many cell sites. Oftentimes, MSOs only need to build short spurs to certain towers and deploy Ethernet access interfaces to create a unified data network to provide scalable backhaul service. In fact, many of the largest MSOs already are making forays into the market.

An example is Cox Business Services, a subsidiary of Cox Communications, the third-largest U.S. cable operator. Cox Business Services has been providing fiber-based wireless backhaul for more than a decade to most major wireless carriers. Additionally, Comcast, Time Warner Cable and other major MSOs offer Ethernet-based services today and are tailoring them to meet the demand of wireless carriers.

Putting it All Together

An MSO can provide T-1-over-Ethernet services by deploying a multiservice edge device that offers both TDM and Ethernet interfaces at the cell site (see Figure 2). Using circuit emulation, this TDM traffic can be transported over an MSO's Layer 2/Layer 3 network. Additionally, an MSO can offer native Ethernet backhaul from the same device as Ethernet interfaces become more prevalent at the cell site. By pairing this multiservice edge device with a carrier-class multiservice router, MSOs can also offer guaranteed Quality of Service (QoS) for any type of access traffic over a Multiprotocol Label Switching (MPLS) network, along with verifiable Service Level Agreements (SLA). These factors help deliver the availability, reliability and scalability that wireless operators require.

Because wireless operators want to protect their embedded investments, they will continue to require an OC-3/12 handoff from the cell site. The MSO can address that need by deploying a Digital Cross-connect System (DCS) to function as an efficient, centralized headend. The DCS offers a central location to manage and troubleshoot T-1 circuits and collect statistics for SLA reporting.

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"As long as we can get carrier-class Ethernet, using an Ethernet-based backhaul is a great solution," said Tarazi. "This goes a long way toward solving both the backhaul cost issue and migrating toward a more IP-based network, and companies that can offer that Ethernet pipe will be well-positioned."

Depending on its infrastructure, an MSO can pursue the wireless backhaul market right away by using its SONET-based network, or it can leverage its embedded Ethernet investments with incremental upgrades to edge devices that support T-1-over-Ethernet service. Either way, by implementing solutions that support guaranteed Ethernet and/or MPLS, MSOs have a significant opportunity to capture a share of the booming wireless backhaul market and generate significant new revenue streams. By leveraging the flexible solutions that Tellabs offers, MSOs can tap into these revenue streams with the efficiency and carrier-class reliability that wireless providers have come to expect.

Wireless Data Subscribers by Region

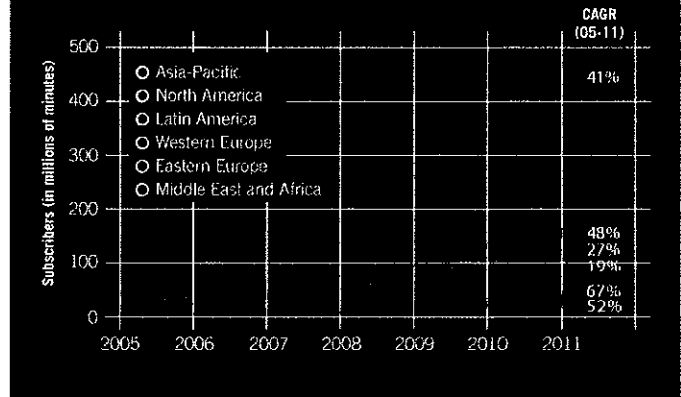Source: Wireless Backhaul: Bandwidth Explosion and Emerging Alternatives, 2Q 2006, ABI Research

Figure 3. Wireless data subscribers by region